WE CLAIM:

1. A method of cutting material comprising

connecting a computer to a saw machine, the computer being programmed to optimize cutting of stock to satisfy a cut list,

measuring the length of a first piece of material to be cut, and inputting the length measurement into the computer,

virtually marking a defect in the first piece of material, and inputting location of the defect into the computer,

automatically calculating a plan for optimal cutting of the first piece of material to fulfill cut list requirements,

executing the plan including automatically pushing the first piece of material toward the saw, and cutting the first piece of material into one or more cut list parts, and

performing the measuring and marking steps on a second piece of material at least partially in parallel with the executing step on the first piece of material.

2. The method of claim 1, wherein the marking step includes deflecting a light beam adjacent one or more a defect boundary.

3. The method of claim 1, wherein the marking steps are performed without physically marking the material.

4. The method of claim 1, wherein the executing and marking steps are performed on adjacent parallel tracks.

5. The method of claim 1, wherein the measuring step is performed automatically by sensing an end of the piece of material in relation to a pusher position.

6. A method of cutting material comprising

connecting a computer to a saw machine, the computer being programmed to optimize cutting of stock to satisfy a cut list,

measuring the length of plural pieces of material to be cut, and inputting the length measurements into the computer,

virtually marking defects in the pieces of material, and inputting locations of the defects into the computer,

automatically calculating a plan for optimal cutting of the pieces of material to fulfill cut list requirements, and

executing the plan including automatically pushing the pieces of material toward the saw in series, and cutting the pieces of material into cut list parts.

7. A method of cutting material comprising

connecting a computer to a saw machine, the computer being programmed to optimize cutting of stock to satisfy a cut list,

measuring the length of a first piece of material to be cut, and inputting the length measurement into the computer,

virtually marking a defect in the first piece of material by deflecting a light beam, and producing an audible or visible signal indicating a marking event,

automatically calculating a plan for optimal cutting of the first piece of material to fulfill cut list requirements, and

executing the plan including automatically pushing the first piece of material toward the saw, and cutting the first piece of material into one or more cut list parts.

8. The method of claim 7, wherein the marking step includes inputting locations of boundary defects into the computer.

9. The method of claim 7, further comprising

selecting whether the marking step results in an audible signal, a visible signal, or both.

10. The method of claim 7, further comprising

adjusting the volume level of an audible signal resulting from a marking event.

11. The method of claim 7, further comprising

providing a light beacon on a post connected to the saw machine, the light beacon being configured to light up indicating a marking event.

12. A system for in-line processing of a material comprising

a detector configured to produce data corresponding to a particular position at which a light beam is manually deflected to the detector,

a material processing station including a pusher mechanism configured to position the material for processing, and

a controller operatively connected to the optical measuring device and the pusher mechanism, wherein the controller is configured to operate the pusher mechanism based on the data.

13. The system of claim 12, wherein the particular position is disposed on a data input line defined by the light beam, and wherein movement of the pusher mechanism defines a processing line at least substantially parallel to the data input line.

14. A system for controlling processing of a material comprising

an optical measuring device configured to create data corresponding to a particular position at which a light beam is deflected manually,

a signal mechanism configured to generate at least one of an audible signal and a visible signal indicating creation of the data,

a material processing station, and

a controller operatively connected to the optical measuring device and the material processing station, wherein the controller is configured to control processing of the material based on the data.

15. The system of claim 14, wherein the data relates to a structural aspect of the material.

16. The system of claim 14, wherein the data relates to system operation information that does not describe structural aspects of the material.

17. A system for controlling in-line processing of a plurality of articles comprising

a data input station for input of first and second processing data for respective first and second articles by manual placement of an object in a light beam,

a material processing station for processing the first and second articles, and

a controller operatively connected to the data input and material processing stations and configured to control processing of the first article based on the first processing data while the second processing data is input for the second article.

18. The system of claim 17, wherein the material processing station includes a pusher mechanism configured to position the first and second articles by pushing such articles.

19. The system of claim 17, wherein the controller has access to a cut list, and wherein the controller is configured control processing of the first article according to the cut list.

20. The system of claim 17, wherein the material processing station defines a processing line, and wherein the material processing station is configured to receive the first article from the data input station by movement of the first article at least substantially perpendicular to the processing line.

21. A system for controlling in-line processing of an article comprising

a data input station for input of processing data for an article by manual placement of an object in a light beam,

a material processing station defining a processing line and configured to receive the article from the data input station by movement of the article at least substantially perpendicular to the processing line, and

a controller operatively connected to the data input and material processing stations and configured to control processing of the article based on the processing data.

22. The system of claim 21, wherein the controller has access to a cut list and is configured to optimize processing of the article according to the cut list.

23. The system of claim 21, wherein the material processing station is positioned so that a person can manually move the article from the data input station to the material processing station while the feet of the person remain stationary.

24. The system of claim 21, wherein the material processing station is configured to be generally in front of or behind the data input station in relation to a person operating the system.

25. The system of claim 21, wherein the controller is configured to store processing data input for two or more articles, and wherein the material processing station is configured to sequentially process the two or more articles.

26. A method of processing material comprising

providing a machine along a processing path, and a pusher configured to push a work piece toward the machine for executing an alteration to the work piece,

placing a work piece on the processing path between the machine and the pusher,

driving the pusher to push the work piece in a first direction toward the machine to point A along the processing path,

reversing the pusher in a second direction opposite from the first direction,

activating the machine to perform an alteration on the work piece,

returning the pusher to point A, and

resuming movement of the pusher in the first direction for carrying out a planned subsequent operation.

27. The method of claim 26, wherein the machine is a saw.

28. The method of claim 27, wherein the work piece is a pipe.

29. The method of claim 26, further comprising

activating an interlock to disenable the machine while the pusher is moving.

30. The method of 27, further comprising

connecting a computer to a saw machine, the computer being programmed to optimize cutting of stock to satisfy a cut list.

31. The method of claim 30, further comprising

automatically calculating a plan for optimal cutting of the work piece to fulfill cut list requirements.

32. The method of claim 31, further comprising

inputting location of a defect in the work piece into the computer prior to the calculating step.